

**REMARKS**

The Official Action mailed July 7, 2003, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statement filed on November 15, 2000 and corrected on December 13, 2000.

Claims 1-4, 6-9 and 21-63 were pending in the present application prior to the above amendment. Claims 21-55 have been canceled, independent claims 1, 6, 56, and 60 have been amended to better recite the features of the present invention and new claims 64-71 have been added to recite additional protection to which the Applicants are entitled. Accordingly, claims 1-4, 6-9 and 56-71 are now pending in the present application, of which claims 1, 6, 56, 60, 64 and 68 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The Official Action rejects claims 1, 2, 4, 6, 7, 9, 56, 57, 59-61 and 63 as anticipated by U.S. Patent No. 5,216,491 to Yamamoto et al. and claims 1-4 and 56-59 as anticipated by U.S. Patent No. 4,862,237 to Morozumi. The Applicants respectfully submit that an anticipation rejection cannot be maintained against the independent claims of the present invention, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Either Yamamoto or Morozumi does not teach all the elements of the independent claims, either explicitly or inherently. Independent claims 1, 6, 56 and 60 have been amended to recite an optical sensor comprising a gate electrode over a

substrate, a polycrystal semiconductor layer formed over the gate electrode with a gate insulating film interposed therebetween, and an amorphous semiconductor layer formed on the polycrystal semiconductor layer. These features are supported in the specification at least by Fig. 1A. Either Yamamoto or Morozumi does not teach an optical sensor comprising a gate electrode over a substrate, a polycrystal semiconductor layer formed over the gate electrode with a gate insulating film interposed therebetween, and an amorphous semiconductor layer formed on the polycrystal semiconductor layer.

Since either Yamamoto or Morozumi does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(a), (b) and (e) are in order and respectfully requested.

The Official Action rejects claims 3, 8, 58 and 62 as obvious based on the combination of Yamamoto and U.S. Patent No. 4,549,088 to Ozawa and claims 1-4 and 56-59 as obvious based on Morozumi. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present invention, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of


one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Either Ozawa or the secondary teaching in Morozumi does not cure the deficiencies in either Yamamoto or Morozumi. The Official Action relies on Ozawa to allegedly teach a shift register and on the secondary teaching in Morozumi to allegedly teach a bias to a terminal (page 3, Paper No. 15). Yamamoto, Morozumi and Ozawa, either alone or in combination, do not teach or suggest an optical sensor comprising a gate electrode over a substrate, a polycrystal semiconductor layer formed over the gate electrode with a gate insulating film interposed therebetween, and an amorphous semiconductor layer formed on the polycrystal semiconductor layer. Since Yamamoto, Morozumi and Ozawa do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are in order and respectfully requested.

New claims 64-71 have been added to recite additional protection to which the Applicants are entitled. New claims 64-71 also recite an optical sensor comprising a gate electrode over a substrate, a polycrystal semiconductor layer formed over the gate electrode with a gate insulating film interposed therebetween, and an amorphous semiconductor layer formed on the polycrystal semiconductor layer. For at least the reasons stated above, the Applicants respectfully submit that new claims 64-71 are in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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